

# Political Party Preference of Freshmen University Students and its Association with Student Lifestyle Characteristics and the Influence of 1 Year Public University.

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## Abstract

**Objective:** To determine the political party preference of university freshman students the first month and last month of their first year of college and its association with gender, race/ethnicity, demographic and lifestyle factors.

**Methods:** This cross-sectional study consisted of 200 university freshman students (18 or 19 years old) who were enrolled in the first week of September 2018 at the University of Iowa. Students were screened for freshman student status, age between 18-19, and plan to remain on campus next semester. Students who met all inclusion criteria were given informed consent and filled out a questionnaire at enrollment and follow-up. Data were entered using REDCap Cloud software (Encinitas, CA). Comparisons between categorical variables were assessed using Pearson's Chi-square test. Statistical analyses were performed using SAS version 9.4.

**Results:** Of the 200 freshman students, 73 (36.5%) men and 127 (63.5%) women were enrolled with the majority claiming residence in Iowa (67%). At enrollment 62.9% said they had registered to vote (59.2% men, 65.1% women). The political party preferences were as follows: Republican 31.5% (men 33.8%, women 30.2%), Democrat 39.1% (men 28.2%, women 45.2%), Libertarian 4.1% (men 4.2%, women 4%), Independent 13.7% (men 19.9%, women 11.9%), and none of the above 11.7% (men 16.9%, women 8.7%). At enrollment, there was no significant association between political party preference and gender, race, hometown political preference, nicotine or caffeine exposure, and vegetarian diet. Urban vs. rural hometown had a significant influence on initial political party preference.

**Conclusion:** The majority of freshmen university students had registered to vote. The Democratic party was the highest preferred party, the Libertarian party the lowest preferred, and 11.7% reported no preference. College freshmen were significantly likely to change their political party preference by the end of their freshman year, leaning more towards the Democratic Party.

**Keywords:** Political preference, College freshmen, Political view development, Education.

*Accepted on March 10, 2021*

## Introduction

Interest in political views across the United States and how they are influenced by one's experiences and social background has been a long-investigated topic. The years surrounding the 2016 Presidential election have highlighted a political climate divided by diverging stances on a myriad of issues, ranging from taxes and college tuition to abortion and immigration policy. Speeches are divisive and often exhibit intolerance for "the other side". However, it is not clear whether the United States (U.S) is becoming more polarized or if the political stage is dominated by vocal individuals. As the demographics across the U.S. change, it is important to understand the political preferences of the youngest American voters, many of whom are university students. However, to understand campus political preferences, we should begin by looking at the demographics of the U.S. and the nation's evolving political beliefs.

As of July 1, 2018, the U.S. population is estimated to be 327,167,434 people [1]. Of this number, 15-19-year-olds make up 21,219,050, (6.6%) [2]. 76.6% are white, 13.4% are black, 5.8% are Asian, and 18.1% are Hispanic or Latino [1]. Of people over 25 years old, 30.9% have at least a bachelor's degree (1). The 2010 census identified that much of the U.S. population is Urban (71.2%), with 19.3% rural, and 9.5% living in urban clusters [1].

Developing a foundation of the general demographics of America today is necessary to develop an understanding of the U.S.; however, this information is rapidly changing. This change has a dramatic impact on American politics. More people in the U.S are moving to Urban counties. Per the Pew Research Center, in 2000, 16% of the population lived in rural counties and 31% in urban counties, in 2016, these numbers were 14% and 31%, respectively [3]. Since 2000, more people

left rural counties for urban, suburban or small metro counties than moved in from those areas [4]. This loss of rural population is affecting the Midwest more than other regions. With this change, we see the voting preferences of rural vs. urban widen. Rural areas have a higher concentration of Republicans (54% republican) and republican-leaning independents while urban areas lean democratic (62%) [3].

Finally, in the U.S. more adults are obtaining a college education than previously in history. Per the National Center for Education Statistics, 62,839 people in 1869 were enrolled in higher education compared with 6 million people in 1969 and 19.9 million people in 2018 [5]. This number, while leveling off, is predicted to increase to 20.5 million in 2027 [5]. Females make up 56% of current college students. Not only is the number of people attending college increasing; but the college population is becoming more diverse: in 2018, 52.9% of college students were non-Hispanic white (66.1% in 2007), 20.9% are Hispanic, 15.1% are black, and 7.6% are Asian [5]. College education is a large part of American young people's lives and their exposures are increasingly diverse.

Since the 2016 election, Americans feel politics in the United States are becoming more contentious and polarized. In reality, the United States has been divided for much of its existence. This division is reflected in many periods of political unrest. Even in 1879, Hill's Manual of Social and Business Forms discouraged political discourse with those of opposing views [6]. Even if the country is not divided, 8 in 10 individuals polled feel it is divided [7]. However, those who strongly identify as Democrat or Republican seem to be more divided than ever, especially over racial issues, immigration, and government spending. Today, there is a 36% difference of opinion, while in 1994, there was only a 15% divide [8]. Americans are increasingly only expressing "one-sided" opinions. Consistently liberal opinions now persist in 21% of Americans (up from 10% in 2000) [9].

Even with this evidence of dichotomized views between Republicans and Democrats, most Americans do not consistently take a position on one side of the liberal vs. conservative "table." Elections are becoming less and less competitive at the county level [10]; however, 39% of Americans identify as Independents (31% as Democrats and 30% as Republicans) [4]. It appears as though extreme views are the only voices being heard, increasing the perception of polarizing groups without necessarily applying to the majority of the U.S. [11].

Unfortunately, Americans self-select environments in which their thoughts and perceptions are not challenged. Across America, a very negative view of the opposing party (43% and 38% percent for Democrats and Republicans, respectively) has doubled since 1994, when there were only 17% with very unfavorable perceptions of those with opposing viewpoints [12]. 50% of the U.S. now lives in a county where the presidential candidate won by 20 percentage points [13]. Conservatives have been found to be more likely to prefer communities of like-minded people [14]. Advances in technology have allowed people to seek information they find agreeable and ignore that which they do not agree with or understand. People

who identify as liberal or conservative are more likely than non-partisans to say most of their friends share their political views [12,15]. People may not have close friends with varying political views today; but we should be more likely to want to hear diverse views as the world is integrating more than before. Unfortunately, 68% of Democrats and 52% of Republicans find it stressful and frustrating to talk across political views [15]. However, 42% of adults under 30 have reported they are likely to find diverse political discussions informative and interesting (vs. 33% over 30) [15].

Pew Research Center 2017 found the following distribution of political identification of registered voters: 37% independents, 33% Democrats, and 26% Republicans [16]. In comparing these political affiliations to those of college students, given that college education in the U.S. is associated with liberal political ideologies, we might predict that these environments would be an echo chamber for liberal ideas. In fact, college-aged voters did overwhelmingly vote Democratic in 2008 (66%), 2012, (60%), and 2016 (55%) [17].

Numerous studies have analyzed the impact of college education on political views. Is there a selection bias by which more liberal students may choose liberal majors and their ideas are then reinforced by a liberal environment? The literature has revealed one extremely beneficial influence of college education: after one year in college, students view both liberals and conservatives more favorably than when they arrived [18]. This finding supports college being a time when young adults gain independence and diversify their world views.

How and when young people develop their political beliefs and identity is a topic of great interest, especially as 52% of Americans report they are more attentive to politics since the 2016 election [19]. The objectives of this cross-sectional study were to determine the political party preference of university freshman students during the first and last month of their freshman year and the association of political party preference with gender, race/ethnicity, hometown characteristics, and other demographic/lifestyle factors.

## **Research Methodology**

This cross-sectional study consisted of 200 university freshman students who were enrolled over a two-day period in the first week of September 2018 at a co-educational residence hall at the University of Iowa as part of an Epstein Barr Virus seroprevalence/incidence study in which two questions were added as to their political party preference and whether they were registered to vote. Of the 200 students, 196 answered the political party preference question. This study was approved by the Institutional Review Board of the University of Iowa. Students were approached and screened for freshman student status, age between 18-19 years, current state of good health, no history of bleeding disorders, and plan to remain on campus next semester. Students who met all inclusion criteria were eligible, gave written informed consent, and proceeded to fill out a questionnaire. The student received a \$20 gift card at the initial and follow-up visit for completion of the above task. Hometown residence was categorized as rural, urban, or urban

cluster. The census bureau defines an urban area with an area of 50,000 or more people and an urban cluster as an area with at least 2,500, but less than 50,000. It further clarifies that a block must have a density of 1000 people per square mile. Thus, in our data, towns with over 2,500 people, but less than 1,000 persons per square mile or less than 2,500 people were defined as rural. Students had a follow-up visit the last two weeks at end of freshman year and repeated the questionnaire. 134 of the 200 students returned for a follow-up visit.

### Statistical analysis

Data from the questionnaire were entered using REDCap Cloud software (Encinitas, CA). Additional data pertaining to students' hometown and county population, percent popular vote of county from 2016 presidential election, and city population per square mile was obtained from the Census.gov and corresponding state health department websites. Categorical variables are presented as counts (percentages) and utilized Pearson's Chi-square test for associations. Odds ratio estimates were calculated for significant variable associations. Our type I error rate was set at  $\alpha = 0.05$ . Statistical analyses were performed using SAS version 9.4 (SAS Institute, Cary, NC, USA) and SPSS IBM Corp, Version 25.0.

### Results

Of the 200 freshmen students, 196 answered the political party preference question: 70 men (35.7%) and 126 women (64.3%). Iowa students represented 133 of 196 students (67.9%), 37 were from Illinois (17.9%), 28 were from other states. Participant race was reported as follows: 157 White (80.1%), 12 Asian (6.1%), 12 Hispanic (6.1%), 3 Black (1.5%), and 12 Other (6.1%). Any person reporting more than one race was included in Other. Due to low numbers of non-white participants, analysis was completed by grouping white vs. non-white race. 132 students had their college of enrollment recorded. 106 (80.3%) were enrolled in Liberal arts and sciences, 9 (6.8%) were in the college of nursing, 12 (9.1%) were in Tippie college of business, 3 (2.3%) were in the college of engineering, and 2 (1.5%) were enrolled in the college of medicine (radiation sciences). Most students were originally from an Urban Cluster (78/195 (40.0%)), 76 from an Urban area (39.0%), and 41 from a rural area (21.0%). 94 students are from a county that voted Republican in the 2016 presidential election (48.2%), while 101 were from a county that voted Democratic (51.8%). The strength of vote by Republican versus Democratic Party in the 2016 presidential election is broken down in Table 1. Political party preferences at the beginning of freshman year were as follows based on 196 responses from 200 students: Republican 31.6%, Democrat 39.3%, Libertarian 4.1%, Independent 13.8%, and None of the above 11.2% (Table 2). The 134 Iowa students had the following party preference, 39.9% Democrat, 33.1% Republican, 3.8% Libertarian, and 13.5% Independent, and 9.8% none of the above. Overall, 63.3% of participants were registered to vote, 60.0% of men and 65.1% of women ( $p = 0.4$ ). Most students with a political party preference had registered to vote (Table 2). The percentages of students registered across parties were not significantly different ( $p = 0.07$ ). Among

women, 45.2% reported Democrat preference vs 28.6% of men ( $p = 0.022$ ), 30.2% female Republican vs 34.3% male ( $p = 0.551$ ), 4.0% Libertarian vs 4.3% male ( $p = 0.914$ ), 11.9% Independent vs 17.1% male ( $p = 0.308$ ), and 8.7% none of the above vs 15.7% male ( $p = 0.138$ ) (Table 2). Men were three times more likely to report no political preference versus Democratic preference ( $p = 0.02$ ) when compared to women. Race did not have a significant relationship with political party preference ( $p = 0.089$ ). Student political party preference was not influenced by their home county's political preferences. Overall, the winning 2016 presidential election party by county (Democratic versus Republican only) ( $p = 0.083$ ) and strength by which the party won ( $p = 0.407$ ) were not significantly associated with party preference. However, those from a county that voted Republican were more likely to report independent party preference versus those from a county that voted Democratic ( $p = 0.016$ , Odds Ratio (OR): 3.130). Students who were from an urban area were significantly more likely to identify as Democrat compared to students from a rural area ( $p = 0.040$ ). A freshman student from a rural residence (versus an urban area) is 4.3 times less likely to prefer Democratic party versus Republican ( $p = 0.003$ , OR: 0.232), 3.41 times less likely Democratic versus independent ( $p = 0.060$ , OR: 0.293), and 4.5 times less likely Democratic versus none ( $p = 0.03$ , OR: 0.220). 34% of students reported caffeine exposure. Those preferring Democratic party (41.6%) reported the highest percentage of daily coffee consumption. Overall, it was not associated with political party preference ( $p = 0.188$ ). Democratic coffee consumption was not significantly different from Republican ( $p = 0.354$ ) or Libertarian ( $p = 0.824$ ) (Table 1). However, freshmen who did not consume coffee were 3.1 times less likely to prefer Democrat versus Independent ( $p = 0.037$ , OR: 0.320). None of the students reported smoking more than one cigarette/day. However, 27.6% of students reported nicotine exposure through vaping which was highest among Republicans (32.3%); but, not significantly associated with political party preference ( $p = 0.717$ ). Nine (4.5%) students reported having a vegetarian diet which did not have a significant relationship with political party preference ( $p = 0.074$ ). No freshmen with political preference of Republican or "None" reported a vegetarian diet. 74.4% of students reported engaging in weekly aerobic exercise >2 hours/week and 65.5% reported having engaged in running one or miles in the last week, but there was not a significant relationship with political party preference ( $p = 0.357$ ,  $p = 0.347$ ) with either, respectively (Table 2). At the end of freshman year, 134 of the 200 (67%) participants returned for follow up. Political party preference for 36 (27.1%) of 133 students changed (Table 3). Democratic party preference increased by 7.5% (lost 4 students and gained 10 students), Republican decreased by 6.0%, and "none" decreased by 4.5%. Compared to Democrats, students who reported no political preferences were 12 times more likely to change political preference ( $p < 0.001$ ), Independents were 9 times more likely to change ( $p = 0.001$ ), Libertarians were 6.4 times more likely to change ( $p = 0.067$ ), and Republicans were 5.3 times more likely to change ( $p = 0.008$ ). Demographic and lifestyle factors were also analyzed for association with changes in political preference (Table 4). Factors associated with change

**Table 1.** Student home county percentage of vote in 2016 presidential election.

Winning party by County	Percent Presidential Vote (2016)	N (%)
Republican	--	94 (48.2)
	>60%	31 (15.9)
	51 – 59%	49 (25.1)
	<50%	14 (7.2)
Democrat	--	101 (51.8)
	>60%	23 (11.8)
	51 – 59%	59 (30.3)
	<50%	19 (9.7)

**Table 2.** Characteristics associated with political party preference.

Party preference (number of students)	Preference %	Registered %	Female %	Male %	Caffeine Use%	Vaping Use%	Vegetarian Diet %	Aerobic Exercise >2 hr/wk	Run >1 mile in last week %	Rural Hometown %
Democrat (77)	39.1	63.6	45.2	28.2	41.6	22.1	6.5	66.2	57.1	11.7
Republican (62)	31.5	62.9	30.2	33.8	37.5	32.3	0	77.4	74.2	29.0
Libertarian (8)	4.1	75.0	4.0	4.2	33.9	25.00	12.5	87.5	87.5	25.0
Independent (27)	13.7	77.8	11.9	19.9	18.5	30.8	11.1	80.8	63.0	23.1
Other (23)	11.7	39.1	8.7	16.9	21.7	31.8	0	78.8	65.2	27.3

**Table 3.** Political party preference change from beginning to end of college freshmen.

Variables	Initial N (%)	Follow Up N (%)	Lost N (%)	Grained N (%)	Change
Democrat	55 (41.4)	65 (48.9)	4(7.3)	14	+10
Republican	41 (30.8)	33 (24.8)	12(29.3)	4	-8
Libertarian	6 (4.5)	6 (4.5)	2(33.3)	2	-
Independent	19 (14.3)	23 (17.3)	8(36.8)	12	+4
None	12 (9)	6 (4.5)	10(83.3)	4	-6

**Table 4.** Follow up survey student responses by gender.

Variables		Male	Female	Total
>1 Coffee Per Day	Yes	16 (32.7%)	36 (42.9%)	52
	No	33 (67.3%)	48 (57.1%)	81
Weekly Vaping	Yes	17 (34.7%)	12 (14.1%)	29
	No	32 (65.3%)	73 (85.9%)	105
Vegetarian	Yes	3 (6.1%)	6 (7.1%)	9
	No	46 (93.9%)	79 (92.9%)	125
Aerobic Exercise	Yes	36 (73.5%)	59 (69.4%)	91
	No	13 (26.5%)	26 (30.6%)	39
Registered to Vote	Yes	38 (77.6%)	72 (84.7%)	110
	No	11 (22.4%)	13 (15.3%)	24
Political Affiliation	Democrat	23 (46.9%)	42 (49.4%)	65
	Libertarian	2 (4.1%)	4 (4.7%)	6
	Republican	13 (26.5%)	20 (23.5%)	33
	Independent	9 (19.4%)	15 (17.6%)	24
	None of the Above	2 (4.1%)	4 (4.7%)	6
Changed political Preference	Yes	14 (28.6%)	22 (26.2%)	36
	No	35 (71.4%)	62 (73.8%)	97
Race	White	13 (26.5%)	12 (14.1%)	25
	Non-white	36 (73.5%)	73 (85.9%)	109
Total		49	85	134

in political preference were analyzed. Sex ( $p = 0.766$ ), race ( $p = 0.377$ ), home state ( $p = 0.126$ ), rural vs. urban home town ( $p = 0.745$ ), 2016 county presidential elected party ( $p = 0.486$ ), daily coffee consumption ( $p = 0.097$ ), vaping ( $p = 0.688$ ), vegetarian diet ( $p = 0.265$ ), aerobic exercise ( $p = 0.811$ ), miles run in the past week ( $p = 0.284$ ), were not significantly associated with change in political preference over the course of freshman year of college. Students who were not registered to vote were significantly more likely to change their political preferences ( $p = 0.022$ )

## Discussion

The proportion of voters in the United States who have college experience is increasing rapidly. In 1997, 55% of all registered voters had college experience; in 2018, it was 66% [16]. This increase is disproportionately affecting party composition, with those with at least some college education composing 70% of Democratic and 60% of Republican registered voters. Understanding how adults with college experience form their political beliefs and identity during their freshman year is essential to understanding this increasing proportion of U.S. voters. This study analyzed the political preference of college freshman, how their background and actions may relate to their preference, and how their political preference changes throughout their freshman year. This study focuses on students in the Midwest, specifically Iowa, a state known for active engagement during presidential elections. Iowa is the first state to caucus for general elections, providing a strong indication for how candidates will be received across the country. In 2012, Iowa had approximately equal Republican and Democrat voters and many unaffiliated voters; but, this dynamic is changing as the state has become increasingly right-leaning in recent elections [20]. Iowa is the 12th most rural state and 87% of Iowans are white (versus 62% across the United States) [21]. We aimed to examine how this difference in demographics influences the political party preferences of college freshmen in Iowa. Across the nation, college freshmen are more politically partisan and more interested in political engagement than college freshman from the past 50 years [22]. Our freshman cohort at the University of Iowa had a majority 2-party representation: 31.5% Republican, 39% Democrat, 13.7% Independent, 11.7% reporting no preference, and 4.1% Libertarian. The Higher Education Research Institute's (HERI) survey at UCLA found a decline in freshman who are independent or do not affiliate with a political party (22.2% conservative, 35.5% liberal, and 40% non-partisan) [23]. When it comes to all registered voters in the United States, in 2017, 26% Republican, 33% Democratic, and 37% were independent [16]. As shown in the difference between college freshmen and the general population, younger generations have more liberal voting habits compared to older generations. However, most of the research focusing on young adults voting habits has focused on Millennials. Generation Z does have similar voting habits to Millennials who voted 55% Democratic and 37% Republican in the 2016 presidential election [24]. 42.3% of Freshmen students categorized themselves as political "middle of the road" [22] and a 2018 study found 41% of entering college students

identify as moderate [25]. Our survey found 70.5% state their political preference as Democratic or Republican. This finding is very politically partisan, especially when compared to other studies on college freshmen. This difference may be due to the influence of a volatile political atmosphere, hometown environment (including parental influence), or a true increase of political partisanship in young adults. Because freshmen have little college experience in the first few weeks of their freshman year when the initial survey was conducted, we would expect our participants to report views similar to national surveys with people with no college experience; however, our cohort has a Democratic leaning political preference when compared to the general U.S. population with no college experience. Across the U.S., individuals with a high school education identify 47% Republican and 45% Democrat and those with some college experience identify 39% Republican and 55% Democrat [16]. This difference in findings may be because this survey is targeted at 18 – 19-year olds, who belong to Generation Z, which expresses more liberal views. The other studies focus on the adult population as whole and not individual generations. Our study found those who identified as Democrat were significantly more likely to be women. Women across the United States are more likely to lean Democratic. A Pew Research Center study in 2017 found 56% of women identify as Democrats or lean Democratic, while 37% affiliate with or lean toward the GOP [16]. This political party preference divide between men and women also applies to college freshmen. The HERI survey found 41.1% of women identify with liberal vs. 28.9% of men [23]. In 2018, there was an 8% increase in Democrat support from women voters compared to 2016 [26]. As young adults progress through college, they tend to vote more liberal; thus, we would expect women to increase their support for Democratic views as they progress through college. This increase is what was observed in our cohort, as the percentage of women who preferred the Republican party decreased from 32.5% to 23.5% and 46% to 49% increase in preference for the Democratic party. Across the nation, Whites voted 57% Republican and non-whites voted 26% Republican in the 2016 presidential election [17]. We found the odds of a white student favoring Republicans (vs. Democrats) are 1.83 times the odds of non-white student favoring Republicans (CI: 0.76-4.42;  $p = 0.1769$ ). Thus, white college freshmen do have similar voting habits to white voters across the nation; however, with the influence of college experience, we might expect this association to decline as students' progress through their college education. On follow-up, among white students 45% preferred Democrat and 26.6% Republican, correlating with an increase in liberal attitudes as their college education progressed. We also aimed to understand how the home environment of college freshmen influences their political preference response. We did not find an overall correlation between county 2016 presidential election party votes and political preference. Across the United States voting habits appear to be largely a rural vs. urban divide. Urban counties are significantly more Democrat (62%) than Republican (31%), rural areas are more Republican (54%) over Democrat (38%), and Suburban areas are mostly evenly divided in the two-party system [3]. This difference between rural and urban

political preferences holds even when controlling for race [3]. In our study, overall analysis did not show a significant difference in background county population and initial political preference. However, students from an urban area are significantly more Democrat than those from a rural area and those from a rural residence are significantly more likely to report any other political preferences than Democrat. Thus, urban and rural towns do have an influence on college freshmen initial political preference. Voter registration in our cohort (63%) is lower than the 75.3% of college students registered to vote 2008 by the Association of American Colleges and Universities. Adults are required to be registered to vote to actively participate in elections. The students in our study were 18 – 19 years old in September 2018, the year of midterm elections. Because of this young age and an expected record turnout for young voters, it is surprising to see registration percentage is so low compared to all college students across the nation. However, this low percentage may be due to the fact that some had recently turned 18 and had not had time to register for mid-term elections, occurring in November 2018. Our data identified significant information regarding college freshman political identification and lifestyle choices. Most of the literature separates political identity without a complete health assessment at the individual level. Because we were able to directly measure each students' political preferences and self-reported lifestyle choices, we were able to complete an assessment in the correlation of the factors at the individual level without only relying on county level data. 74.4% of students in our study reported engaging in >2 hours/week of aerobic exercise and 65.5% ran  $\geq 1$  mile in the week prior to the initial survey. With student activity, we did not see a relationship with party preference. Previous studies have found those who have "political apathy" are less likely to participate in exercise. However, we did not find this in our cohort. Those who reported no political preference were no less likely to exercise. Adults who follow a vegan or vegetarian diet have been found to have a lower BMI than those who consume meat [27]. However, of all U.S. adults, only 3% are vegans and 5% are vegetarians with higher numbers in 18 – 29 year olds (3% vegan and 7% vegetarian) [28]. Significant differences in political preferences between meat eaters and non-meat eaters have been reported. A survey of vegetarians found 46% identified as Democratic, 3.1% as Republican, and 19% with no party identification [29]. When Republican leaning individuals do follow a vegan/vegetarian diet, they are more likely to discontinue this diet when compared to liberals [30]. We found 4.5% of our cohort reported a vegetarian diet. We did not find a significant relationship with party preference; however, no student who reported Republican or "no political preference" reported following a vegetarian diet. Although we did not find a significant relationship with political preference and vegetarian diet, this non-significant finding is likely due to the low number of vegetarians resulting in a low power. Political party preference was not associated with caffeine or vaping. A large proportion of the U.S. population consumes at least one caffeinated beverage every day (85%), with 92% of college students consuming caffeine at some point throughout 2019 [31,32]. 27.6% of students in our cohort reported a positive history of vaping and

no one reported smoking more than one cigarette a day. Vaping occurs most frequently among Republicans at 32.3%; but this finding was not significant across all parties. On the other hand, the percentage of students who vape is increasing, a study in 2015 found 29% of students have vaped, similar to the finding in this study [33]. In May of 2019, at the end of the students first year of college, 134 participants returned for follow-up and were presented with the same questionnaire. Students who initially answered, "No preference", independent, libertarians, and republican at the beginning of the year were all more likely than democrats to change their political party preference. Students who were not registered to vote were significantly more likely than those who were to change preference. We were not able to identify any specific lifestyle factors that were significantly associated with change in political preference, putting into question how much of an influence or "grip" these factors have on college freshman reported political preference. It is believed that political attitudes are established around the age of 18 – 19 years old [34]. Before this time, adult experiences and world knowledge are usually limited to the student's home town and ideals largely depend on those held by their parents [35-38]. However, as shown in our study, students are still evolving their political attitudes and are influenced by new experiences and independence as young adults [39,40]. When it comes to transmission of political attitudes in the U.S., many children in the U.S. know if they belong to the Democrat or Republican party, political ideas are generally transmitted from parents, and political partisanship is stable throughout adulthood [41,42]. Because we did not identify any specific lifestyle factors related to home environment, it is not clear if this factor has the strong influence on students' political beliefs today as it did in previous publications. This potential influence may be due to the accessibility of the internet. If young people want to learn something new or hear different beliefs, it is only one click away, giving students more independence and diversity in the views they hear while growing up than ever before. This accessibility also may be why we see a larger percent of students who are able to state a political preference early in their college career. On the other hand, this early preference may result in a more partisan future. Americans who develop political attitudes at an earlier age have been found to have a stronger adult political identity [43] indicating this increase in political partisanship as observed in our study may result in more individuals who are not willing or able to take on different political views throughout adulthood; especially because the openness to change is believed to decrease as we age [42]. On the other hand, we did find that those who reported no political preference, except democrat, were significantly likely to change their party preference; overall becoming more liberal throughout their freshman year. There are several limitations of this study. First, the low number of participants (200 and 134 at follow-up), limit the power of analysis and are not representative of the broader college population since 80% of participants were in the college of liberal arts and 64.3% were women. Second, two-thirds of the students are from Iowa and attend the University of Iowa, limiting broad applicability of this study to students across the nation. Third, students were recruited primarily to

determine the seroprevalence of antibody to Epstein-Barr virus with the specific requirement to be in good health creating significant potential selection bias. Fourth, to increase participation, students were presented with a \$20 Java House or Amazon gift card for each visit which took place at a single campus dining hall on campus from 10 am – 2 pm, which also could have resulted in potential selection bias. Fifth, when completing the survey, students had the right to only answer the questions of their choice, resulting in some absent questions and further limiting data, but the percentage of unanswered questions was 2% or less. Sixth, we asked, “which political party do you prefer?” for the political party preference question. Because we did not assess freshmen political beliefs, we may have captured responses that are more polarizing as this question forces categorization of political views and not political beliefs. Nevertheless, among the students who did participate these descriptive demographic and lifestyle characteristics and political party preferences were interesting and prompt further study.

## Conclusion

We found a politically divided freshman class at the University of Iowa. Overall, no political party had a majority preference among university freshmen, but they entered freshman year leaning more Democratic, especially among female students in their political preferences. This preference significantly increased by the end of their freshman year. Those students, who changed their political preference by the end of their first year, typically had not registered to vote or reported no political preference. Students from rural areas were less likely to prefer the Democratic Party. Lifestyle factors studied in this cohort were not found to have significant association with political party preference.

## Implications and Contributions

This study was supported in part by The University of Iowa Clinical and Translational Science Award - NIH (UL1TR002537).

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